

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

CHROMAR SYSTEMS, INC., D/B/A
CMS TECHNOLOGIES AND
CHROMAR HOLDING COMPANY, LLC,

Plaintiffs,

v.

ADTRAN, INC., *et al.*,

Defendants.

6:15-CV-618-JRG-JDL

LEAD CASE
PATENT CASE

JURY TRIAL DEMANDED

**DEFENDANTS' MOTION FOR SUMMARY JUDGMENT OF INVALIDITY OF THE
ASSERTED CLAIMS OF THE '107, '760, AND '838 PATENTS
UNDER 35 U.S.C. § 112(1)**

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On August 9, 2016, this Court granted the letter brief request of Defendants ADTRAN, Inc., Accton Technology Corporation, Aerohive Networks, Inc., Costar Technologies, Inc., Costar Video Systems, LLC, D-Link Systems, Inc., Dell Inc., Edgecore USA Corporation, EnGenius Technologies, Inc., and TRENDnet Inc. (collectively, “Defendants”) to file a motion for summary judgment of invalidity under 35 U.S.C. § 112(1) of the Asserted Claims of U.S. Patent Nos. 8,902,760 (“’760 patent”), 8,942,107 (“’107 patent”), and 9,019,838 (“’838 patent”).¹ Accordingly, Defendants hereby request that the Court grant this motion for summary judgment that the Asserted Claims are invalid for lack of enablement and written description.

I. INTRODUCTION

The Asserted Claims, filed in a series of 2012 applications (fourteen years after the 1998 application to which they each claim priority), recite traditional Ethernet equipment that purportedly is specially configured with certain recited structure to allow that equipment to perform certain functions. According to Chrimar, with only the addition of simple structure (e.g., a connector, contacts, a path,) these existing Ethernet devices can be configured to perform a variety of sophisticated new functions. Chrimar advocated for and received this vast broad scope. The enablement and written description requirements are an important check on whether these much later-filed and extremely broad Asserted Claims can find the necessary support in the specification to satisfy the requirements of 35 U.S.C. § 112 (1) .

As the Court will recall, at claim construction, Chrimar faced a choice: (1) argue that the structure recited in the Asserted Claims is sufficient to perform the recited functional limitations or (2) accept that provisions of 35 U.S.C. § 112(6) applied and that the scope of the Asserted

¹ Plaintiffs Chrimar Systems, Inc. d/b/a CMS Technologies and Chrimar Holding Company, LLC (collectively, “Chrimar” or “Plaintiffs”) assert against the Defendants claims 104, 111, and 123 of the ’107 patent, claims 1, 31, 59, 69, and 72 (asserted across claims 1, 59, and 69) of the ’760 patent, and claims 1, 2, 26, and 40 of the ’838 patent. For purposes of this motion, Asserted Claims refers to the claims and patents identified above.

Claims is limited to the structure(s) identified in the specifications to perform the recited functional limitations. Having chosen the former, the question now is whether the specifications of the '760, '107, and '838 patents satisfy the requirements of 35 U.S.C. § 112(1) by adequately describing and enabling one of skill how to make and use the claimed devices (i.e., devices configured with the recited structure(s) to perform the recited functions). A simple review of the specifications reveals the complete lack of enabling disclosures for the scope of the claims as construed by this Court. Because the specifications provide no materials, starting point, or direction, one of ordinary skill in the art would need to engage in undue experimentation to make or use the devices of Asserted Claims, if it could be done at all. In addition, there is no description within the specifications to suggest that the inventors were in possession of the devices claimed in the Asserted Claims. So clear are the inadequacies in the specification, Chrimar's expert on validity failed to provide *any* analysis within his rebuttal report to counter the Defendants' expert's detailed analysis on why the Asserted Claims are invalid on these grounds..

II. STATEMENT OF ISSUES TO BE DECIDED

1. The Court must decide whether the specifications for the '107, '760, and '838 patents fail to enable one of ordinary skill as of the effective date of the patents to make and use the full scope of the claimed devices, which are devices configured with the specifically recited structure to perform the recited functional limitations of the Asserted Claims.

2. The Court must decide whether the specifications fail to describe to one of ordinary skill the full scope of the claimed devices, which are devices configured with the specifically recited structure to perform the recited functional limitations of the Asserted Claims.

III. CLAIM CONSTRUCTION AND FULL SCOPE OF CLAIMS

The Asserted Claims are apparatus claims that recite “structure” as well as “functional limitations”² that Chrimar states are “tied to the specific structural elements in the claim.”³ Claim Construction Hearing Tr., at 32:20-34:8, Mar. 10, 2016, 6:15-cv-00163-JDL, ECF # 120 (attached to the accompanying Declaration of Jeffrey T. Lindgren (“Lindgren Decl”) as “Exh. A”); *see also* Claim Construction Hearing Tr., at 55:2-14, June 9, 2016, 6:15-cv-00618-JRG-JDL (attached to the Lindgren Decl. as “Exh. B”). The Asserted Claims recite known Ethernet devices configured in an allegedly inventive way. Memo. Op. and Order, at 20 ECF# 454 (“CC Order”) (the structures “end device,” “terminal equipment,” and “central piece of equipment” were known in the art.); *see also* Exh. A at 39:5-19 (Chrimar admission that traditional Ethernet device is configured in an inventive way to perform the functional limitations). Exemplary claims 1 and 26 of the ’838 patent, which Defendants discussed at the claim construction hearing, illustrate the interplay between the recited structure and functional limitations:⁴

1. A **central piece of network equipment** comprising:

at least one Ethernet connector comprising first and second pairs of contacts used to carry BaseT Ethernet communication signals; and

the **central piece of network equipment** **to detect different magnitudes of DC current flow via at least one of the contacts of the first and second pairs of contacts and to control application of at least one electrical condition** to at least one of the contacts of the first and second pairs of contacts in response to at least one of the magnitudes of DC current flow.

² The “functional limitations” (or “recited functions”) as used variously herein are set forth in the footnote 4 of Exhibit B to the Joint Claim Construction and Prehearing Statement at 1 n. 4, Mar. 17, 2016, 6:15-cv-00618-JRG-JDL, ECF# 355-2.

³ The ’760, ’107, and ’838 patents are in the same patent family and share the same specification.

⁴ The structure is highlighted in green and the functional limitations are highlighted in yellow. *See* “Exh. H” to the Lindgren Decl. for a presentation of the Asserted Claims with the structure and functional limitations highlighted.

26. The **central piece of network equipment** of claim 1 wherein the **central piece of network equipment to distinguish one end device from at least one other end device** based on at least one of the magnitudes of the DC current flow.

According to Chrimar's claim construction expert, Les Baxter, a person of ordinary skill would understand the functional requirements mean that network equipment is *configured or designed to perform that function*.⁵ Mr. Baxter further opined that the Asserted Claims "*set forth structural components* that are capable of performing the claimed functionalities." *Id.* at 22. Chrimar counsel told the Court that *only* the structure recited in the Asserted Claims is needed to perform the recited functions. Exh. A at 32:20-34:8, 34:17-35:9, 36:5-18. Chrimar rejected the notion that additional structures recited in the specification, which Defendants argued must be added pursuant to 35 U.S.C. 112(6),⁶ were necessary to perform the functional limitations. *Id.* For example, Chrimar's counsel stated:

MR. COHEN: Is (sic) the claim itself specifies the exact structures that are required and necessary to perform the functions in the claims. ***If it required additional encoding, the claim would say an encoder.*** It didn't need to be specific to a Manchester encoder, but ***it would have additional structural elements listed in the claim.*** Exh. A at 36:5-11 (emphasis added).

The Court adopted the Plaintiffs' position, that the structure set out in the claims, without more, is sufficient to perform the recited functions and declined to apply 35 U.S.C. § 112(6), holding that the functional requirements were to be given their plain and ordinary meaning.

⁵Declaration of Les Baxter, at 9-10, Apr. 21, 2016, 6:15-cv-00618-JRG-JDL, ECF #403-5 (attached to Lindgren Decl. as "Exh. C"). Specifically, Baxter opined that: (1) the "detect" function means that "the network equipment is ***configured or designed*** to detect different magnitudes of DC current flow;" (2) the "control" function means that the central network equipment "is ***configured or designed*** to control application of at least one electrical condition;" and (3) the "distinguish" function means that the network equipment is ***configured or designed*** to distinguish one end device from at least one other end device." *Id.* (emphasis added).

⁶Defendants argued that the "infinitive to" terms were functional limitations requiring § 112(6) treatment because the structure recited in the claims is insufficient to perform the functions. Exh. B at 57:16-59:12; Defendants' Responsive Claim Construction Brief, at 7-13, May 12, 2016, 6:15-cv-00618-JRG-JDL, ECF #432. Defendants explained that the specification taught that structures such as the firmware kernel 4, Manchester encoder 5, signal receiver 6, signal modulator 7, isolation power supply 8, and status data encoder 9 identified in Figure 3 were needed to perform the claimed functions. Exh. B at 46:9-53:22, 57:16-59:12.

Memorandum Opinion and Order, 6:15-cv-00618-JRG-JDL (“CC Order”), ECF #454, at p. 21. The Court stated its view that Defendants’ argument is more properly one of enablement rather than claim construction. Exh. B at 59:13-60:4, 62:23-64:12.

By avoiding §112(6), Chrimar now must bear the consequences of its advocacy for broad claim scope. As the Court observed, “[w]hat is claimed in the ’107 Patent is not an inventive ‘end device,’ but a known ‘end device’ configured in an inventive way. See ’107 Patent at 22:17-29 (Claim 104).” CC Order at p. 20. The specification must enable one of skill to make and use the Ethernet devices that are “inventively” configured to perform the recited functional limitations using the recited structures set forth in the Asserted Claims. It does not and the Asserted Claims are invalid.

IV. STATEMENT OF UNDISPUTED MATERIAL FACTS⁷

1. A person of ordinary skill would understand the plain meaning of the functional terms (*i.e.*, the “infinite to” terms) to be that the recited structure is designed or configured to perform the recited functions. Exh. C at 6-11.

2. Unrebutted expert testimony establishes that if devices claimed in the Asserted claims devices could even be made, one of ordinary skill in the art would be required to engage in undue experimentation to make or use such devices and one would not possess the knowledge and skill needed to design the devices claimed. Expert Report of Rich Seifert Re: Invalidity of

⁷ Chrimar’s technical expert Dr. Vijay Madiseti failed to provide any responsive rebuttal opinion in his September 7, 2016 Rebuttal Expert Report Regarding Validity to the enablement and written description opinions raised in the August 15, 2016 Expert Report of Rich Seifert Re: Invalidity (in paragraphs 288-372) other than the single conclusory opinion “It is further my opinion that all of the Asserted Claims are not invalid under 35 U.S.C. § 112.” However, conclusory opinions in an expert report are insufficient to support enablement. *AK Steel Corp. v. Sollac & Ugine*, 234 F. Supp. 2d 711, 719 (S.D. Ohio 2002) *aff’d sub nom. AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234 (Fed. Cir. 2003) (citing *In re Buchner*, 929 F.2d 660, 661 (Fed.Cir.1991) (“An expert’s opinion on the ultimate legal issue [of enablement] must be supported by more than a conclusory statement.”)). Chrimar is barred from raising any new expert opinions to respond to this motion that did not appear in Dr. Madiseti’s September 7, 2016 report and Mr. Seifert’s opinions are therefore unrebutted and undisputed.

Asserted Claims of U.S. Patents 8,155,012; 8,902,760; 8,942,107; and 9,019,838, Aug. 15, 2016, 6:15-cv-00618-JRG-JDL (attached to the Lindgren Decl. as “Exh. E”) at ¶¶ 316, 318, 338, 340, 366, 368.

3. Unrebutted expert testimony establishes that, to the extent that the recited functions are performed by the “powered-off end device,” “central piece of networking equipment,” “piece of central BaseT Ethernet equipment” or “piece of BaseT Ethernet terminal equipment” using some structure other than that disclosed in the specification (and claimed as necessary by Defendants), one of ordinary skill would have to engage in undue experimentation to design the structure to perform the functions required by the asserted claims of the ’838, ’107 and ’760 patents. Exh. E at ¶¶ 318, 340, 368.

4. Unrebutted expert testimony establishes that one of ordinary skill would not find the structure required to perform all of the functions recited in the Asserted Claims is inherently disclosed or that it “naturally appears” because the “powered-off end device,” “piece of central networking equipment,” “piece of central BaseT Ethernet equipment” or “piece of BaseT Ethernet terminal equipment” is present. Exh. E at ¶¶ 322, 343, 372.

V. LEGAL STANDARDS

A. Summary Judgment

The legal standards applicable to summary judgment are well-summarized in this Court’s recent summary judgment orders such as 8/23/2016 Sealed Memo. Op. and Order, at 4-5, Aug. 23, 2016, 6:15-cv-00163-JDL, ECF # 255,⁸ and 7/29/2016 Memo. Op. and Order, at 2-3, July 29, 2016, 6:15-cv-00163-JDL, ECF # 223.

⁸ Notwithstanding the titled identifying ECF# 255 as “Sealed,” that order is now public available.

B. 35 U.S.C. § 112(1)

Paragraph 1 of 35 U.S.C. § 112 states in pertinent part:

The specification shall contain a written description of the invention and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same⁹

The statute sets out separate requirements for written description and enablement. *See Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1344 (Fed. Cir. 2010) (holding that the written description and enablement requirements are separate). These requirements “often rise and fall together.” *Id.* at 1352.

“Enablement is a question of law based on underlying factual findings.” *MagSil Corp. v. Hitachi Glob. Storage Techs., Inc.*, 687 F.3d 1377, 1380 (Fed. Cir. 2012). Whether a specification satisfies the written description requirement is a question of fact. *See GlaxoSmithKline LLC v. Banner Pharmacaps, Inc.*, 744 F.3d 725, 729 (Fed. Cir. 2014). Despite being a question of fact, the issue of invalidity for lack of written description is amenable to summary judgment. *See, e.g., Carnegie Mellon Univ. v. Hoffman-La Roche Inc.*, 541 F.3d 1115, 1126-28 (Fed. Cir. 2008) (affirming summary judgment of invalidity for lack of written description).

1. Enablement

“[T]he specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation.” *See Genentech, Inc. v. Novo Nordisk*, 108 F.3d 1361, 1365 (Fed. Cir. 1997). Enabling the full scope of the patent means

⁹ The patent statute was amended in September 2011 by the America Invents Act (“AIA”). Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284, 300-01 (2011). The pre-AIA version of § 112 applies in this case. The post-AIA version of this portion of the statute (§ 112(a)) is identical to the pre-AIA version.

that “[t]he scope of the claims must be less than or equal to the scope of the enablement” to “ensure[] that the public knowledge is enriched by the patent specification to a degree at least commensurate with the scope of the claims,” (*Nat’l Recovery Techs., Inc. v. Magnetic Separation Sys., Inc.*, 166 F.3d 1190, 1195–96 (Fed. Cir. 1999)), and is an integral “part of the *quid pro quo* of the patent bargain.” *AK Steel Corp.*, 344 F.3d at 1244 (emphasis in original). Claims must be enabled as of the effective filing date of the patent. *See MagSil*, 687 F.3d at 1380–81. The Federal Circuit has warned that “a patentee chooses broad claim language at the peril of losing any claim that cannot be enabled across its full scope of coverage.” *Id.*

If, by following the steps set forth in the specification, a skilled artisan would not have been able to replicate the claimed invention without undue experimentation, the claim is not enabled. *See Nat’l Recovery Techs., Inc.*, 166 F.3d at 1196. “Tossing out the mere germ of an idea does not constitute enabling disclosure.” *Genentech*, 108 F.3d at 1366. In addition, a person of ordinary skill in the art cannot be expected simply to ignore the patent specification when attempting to follow the patent. *See Id.*, at 1366–68. Moreover, “[i]t is the specification, not the knowledge of one skilled in the art, that must supply the novel aspects of an invention in order to constitute adequate enablement.” *Id.* at 1366. Thus, if the specification provides insufficient direction or guidance to instruct a skilled artisan how to practice the claimed invention’s full scope, the patent is not enabled. *AK Steel*, 344 F.3d at 1244.

2. Written Description

To comply with the written description requirement, a patent’s specification “must clearly allow persons of ordinary skill in the art to recognize that the inventor invented what is claimed.” *Ariad*, 598 F.3d at 1351 (internal brackets and quotation marks omitted). The requirement is applied in the context of the state of knowledge at the time of the invention. *Capon v. Eshhar*,

418 F.3d 1349, 1358 (Fed. Cir. 2005). To determine whether the written description requirement is satisfied, one must compare the invention disclosed in the specification to the claims, and if the specification fails to describe the claimed invention, the claim fails the written description requirement, regardless of whether one of skill in the art could make or use the claimed invention. *Ariad*, 598 F.3d at 1348. “[T]he test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art.” *Id.* Written description requires that the claimed device be expressly or inherently disclosed in the specification. *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008).

VI. THE ASSERTED CLAIMS ARE INVALID FOR LACK OF ENABLEMENT¹⁰

The Asserted Claims are directed to well-known prior art structures¹¹ that are configured in a novel way with additional recited structures that can perform the specific recited functions. CC Order at 20 (the Court finding that “[w]hat is claimed in the ’107 Patent is not an inventive ‘end device,’ but a known ‘end device’ configured in an inventive way.”); *see also* Exh. A at 35:20-24 (Chrimar counsel explained that “the entire patent and the specification is directed to modifying that [Ethernet] equipment to perform the disclosed inventions”). In other words, the traditional Ethernet equipment was not inventive, but the configuration of the *additional structure capable of performing the recited functions* makes it allegedly inventive or novel.

Indeed, Chrimar told the Court that the Asserted Claims are “specific to the configuration of those [additional] structures.” Exh. A at 36:16-18. Importantly, Chrimar admitted that the “those structures” that are supposedly configured in an inventive way are in *addition* to the traditional Ethernet device recited in the claim. In exemplary claim 1 of the ’107 patent discussed

¹⁰ Because the ’107, ’838, and ’760 patents share a common specification, and for purposes of consistency, all citations to the specification, rather than the claims, shall be to the ’107 patent (Exh. D).

¹¹ *I.e.*, “a central piece of networking equipment,” “a powered-off end device,” “a piece of central BaseT Ethernet equipment,” or “a piece of BaseT Ethernet terminal equipment.”

by Chrimar at claim construction, this additional structure amounts to (1) a connector with contacts and (2) a path.¹² Thus, the specification must enable an end device *with only these two additional structures* in a configuration to perform the recited functions. *AK Steel Corp.*, 344 F.3d at 1244 (“However, as part of the *quid pro quo* of the patent bargain, the applicant’s specification must enable one of ordinary skill in the art to practice the full scope of the claimed invention.”) (emphasis in original); *see also Nat’l Recovery Techs.*, 166 F.3d at 1195–96 (holding the scope of the claims must be equal to or less than the scope of enablement). As demonstrated below, however, the specification does not teach one of ordinary skill in the art to make and use a device configured with only the recited structure to perform the recited functions.¹³

Chrimar cannot substitute the acumen of a skilled artisan for the required enabling disclosure. “Although the knowledge of one skilled in the art is indeed relevant, the novel aspect of an invention must be enabled in the patent.” *Auto. Techs. Intern., Inc. v. BMW of N. Am. Inc., et al.*, 501 F.3d 1274, 1283 (Fed. Cir. 2007); *see also Genentech*, 108 F.3d at 1366 (explaining that while a specification does not need to disclose concepts well known in the art, “that general, oft-repeated statement is merely a rule of supplementation, not a substitute for a basic enabling disclosure.”). Thus, “[i]t is the *specification, not the knowledge of one skilled in the art, that must*

¹² Exh. A at 33:4-23. Chrimar counsel further explained to the Court: “[T]he claim itself tells how that Ethernet terminal equipment does draw that(sic) different magnitudes of DC current flow. There’s additional structure, not just a piece of Ethernet terminal equipment recited...in the claim.” Exh. B at 55:5-9. Claim 1 of the ’107 patent is no longer asserted against the Defendants.

¹³ Despite Chrimar’s assertion to the contrary, the “comprising” language of the Asserted Claims does not mean that the claimed devices can include additional unrecited components and structures to perform the recited functional limitations. *See* Notice of Compliance & Attached Responsive Letter Brief, at 3, Aug. 8, 2016, 6:15-cv-00618-JRG-JDL, ECF# 516-1 (“Letter Br.”). As Chrimar itself repeatedly told the Court in arguing against the application of 35 U.S.C. §112(6), only the specifically recited structure in the Asserted Claims is required to perform the functional limitations, and if additional structure was required it would have been recited in the Asserted Claims. *See* Exhibit A at 36:5-7 (“the claim itself specifies the exact structures that are required and necessary to perform the functions in the claim”), 33:17-34:6, 36:5-18; Exhibit B at 54:2-4 (“that claim language does recite sufficient structure for performing the functions that are stated in the claim”), 54:6-10. For Chrimar to now suggest that the Court should import additional unrecited structure into the Asserted Claims to solve the enablement problem is untenable.

supply the novel aspects of an invention in order to constitute adequate enablement.” *Id.* at 1366 (emphasis added). Because Chrimar argues that it is the configuration (*i.e.*, ability to perform the recited functional limitations with the additional recited structures) of these known devices that is the novelty of the Asserted Claims,¹⁴ that configuration must be enabled.

Chrimar also argues that the specification enables other embodiments (*i.e.*, other than the claimed inventions) that can perform the recited functions. Letter Br. at 3. Whether the specification enables an embodiment not claimed by the Asserted Claims is not relevant. To satisfy the quid pro quo of the patent bargain, the patent specification must teach how to make and use exactly what is covered by the Asserted Claims, namely, the Ethernet devices that are configured with the specifically claimed structure to perform the claimed functions. *See Auto. Techs. Int'l, Inc.*, 501 F.3d at 1280-81 (finding the failure of the specification “to provide sufficient details to teach a person of ordinary skill in the art how to make and use” one of the claimed structures invalidated the asserted claims). A review of the specification, as detailed below, reveals that all of the Asserted Claims are invalid for lack of enablement.

A. The Asserted Claims of the '107 Patent Are Not Enabled

The specification fails to enable the Asserted Claims of the '107 patent. Claims 104 and 123, for the purpose of this motion, recite a “powered-off end device” with the additional recited structure of (1) an Ethernet connector with first and second pairs of contacts and (2) a path, that is configured to perform the recited functions “to draw different magnitudes of DC current flow” and “to convey information about the powered-off end device.” U.S. Patent No. 8,942,107 (attached to Lindgren Decl. as “Exh. D”) cols. 22:17-29, 23:7-8 (filed on Feb. 10, 2012); Exh. C at 10-11; Exh. E ¶327. Claim 111 covers the same “powered-off end device” (with the recited

¹⁴ Exh. B at 55:15-21; *see also* CC Order at 20 (stating “[w]hat is claimed in the '107 Patent is not an inventive ‘end device,’ but a known ‘end device’ configured in an inventive way.”)

Ethernet connector and path) that is designed to perform the recited “draw” and “convey” functions plus the additional recited function “to distinguish the powered-off end device from at least one other end device.” Exh. D col. 22:45-47; Exh. C at 9; Exh. E ¶ 328. The specification fails to teach how this traditional “powered-off end device,” with only the recited Ethernet connector and path, is configured in an inventive way to perform the allegedly novel recited “draw,” “convey,” and “distinguish” functional limitations. *See* Exh. B at 55:15-21 (Chrimar contends the claimed structures performing these functional limitations were “new and novel and innovative” back in 1998).

The specification lacks any guidance or teaching a skilled artisan could follow to add the recited Ethernet connector and path to a traditional “powered off end device” to configure that device to perform the “draw,” “convey,” and “distinguish” functional limitations. The specification’s disclosures regarding remote module 16/16a—the “powered-off end device” recited in the claims—provides no disclosure of how this device, with only the recited Ethernet connector and path structures, is configured to “draw” different magnitudes of DC current, “convey” information about the powered-off end device, or “distinguish” the powered-off end device from another end device. Exh. E ¶ 330. The patent’s teachings regarding connectors (Ethernet connectors) and data lines (path) are limited and disclose passive, mechanical devices not capable of performing these functions. Exh. D col. 7:8-9, 48-50, 52-53 (connector disclosures); Exh. D cols. 5:12-19, 26-31, 7:40-41 (data line disclosures).

Noteworthy is the absence of any teaching that the described connectors or data lines together (or by themselves) can be configured to perform the “draw,” “convey,” and “distinguish” functions in remote module 16/16a. Instead, the specification describes structures not recited in the claims—in fact, those expressly disclaimed by Chrimar during claim

construction—that work together to perform the recited “draw,” “convey,” and “distinguish” functions.¹⁵ For example, when the specification discusses how the remote module 16/16a “draws” power, it expressly teaches that isolation power supply 13 “draws power for the remote module 16....” Exh. D cols. 6:7-8, 7:51-66, 8:5-38. Isolation power supply 13 further works with signal transmitter 12, Manchester encoder 11, and firmware kernel 10 to perform the “draw” function. Exh. D col. 6:7-19. Similarly, when the specification describes how information about the remote module 16/16a is “convey[ed],” it teaches that the remote module 16/16a sends a power signal, which can include slightly altered voltages, to the central module 15/15a using the structures described in Figures 3, 5, 6, and 10, including firmware kernel 10, Manchester encoder 11, signal transmitter 12 and status data reader 14 in remote module 16/16a and firmware kernel 4, Manchester encoder 5, signal receiver 6, signal modulator 7, and isolation power supply 8 in central module 15/15a. Exh. D cols. 5:39-6:53; 8:38-9:10; 9:59-10:36. Finally, when the specification describes the “distinguish” function, it teaches that central module 15 receives and analyzes a signal from the remote module 16 with a “preprogrammed unique identification number.” Exh. D col. 6:7-53. The specification explains that the signal with this identification information is provided from remote module 15/15a by firmware kernel 10 to Manchester encoder 11, which then passes the encoded number to signal transmitter 12, which signal—received at central module 15/15a by signal receiver 6, decoded by Manchester encoder 5 and passed on to firmware kernel 4—“distinguishes” the end device for other end devices. Exh. D cols. 6:7-30, 8:38-9:10.

¹⁵ At claim construction, Chrimar specifically disputed that any of the structures found in Figure 3 would be included in the claimed inventions unless those structures were specifically recited in the claim. Exh. A at 34:17-36:15 (Chrimar suggesting Defendants were trying to import additional structures into the claims when only the recited structures were needed to perform the recited functions.)

The specification does not teach one of ordinary skill how a traditional “powered-off end device” with only the additional recited structures can be configured to perform the purportedly novel recited functional limitations set forth in the Asserted Claims.¹⁶ Exh. E at ¶¶ 330, 334, 336. In fact, nowhere does the specification even suggest that an Ethernet conductor or path can be used to configure the claimed powered-off end device to perform these recited functions, providing clear evidence of a lack of enablement. *See Genentech*, 108 F.3d at 1366 (holding that “[t]ossing out the mere germ of an idea does not constitute enabling disclosure.”) Consequently, there are no steps disclosed for a skilled artisan follow to replicate the claimed invention. *See Nat’l Recovery Techs., Inc.*, 166 F.3d at 1196 (finding no enablement where specification fails to provide steps for one of skill to replicate claimed invention). As a result, a skilled artisan would be required to engage in undue experimentation to make or use the devices of the Asserted Claims. Exh. E ¶¶ 338-340.

Given the limited disclosures in the specification with regard to connectors and path and absence of any disclosures as to how those structures could be configured to perform the recited functions, the specification fails to provide a skilled artisan with any materials, starting point, or direction to make the claimed device. *AK Steel*, 344 F.3d at 1244 (stating there is no enablement where the specification provides no direction or guidance to instruct a skilled artisan how to practice the claimed invention). The unrecited structures the specification suggests could be used to perform the recited functions were expressly disputed by Chrimar as being necessary or included in the Asserted Claims. Thus, a skilled artisan would need to design, without guidance from the specification, circuitry capable of performing the recited functions; as of the effective filing date of the patent one of ordinary skill would not have possessed the knowledge and skill

¹⁶ To the extent Chrimar were to argue that the connector and path are specially configured structures, there is no specification support for that.

needed to do so without undue or excessive experimentation. Exh. E ¶¶ 338, 340; *see also Genentech*, 108 F.3d at 1366 (holding that the specification, not the knowledge of the skilled artisan, must provide the enabling disclosure). Accordingly, claims 104, 111, and 123 are invalid for lack of enablement.

B. The Asserted Claims of the '838 Patent Are Not Enabled

The specification fails to enable the Asserted Claims of the '838 patent. Claims 1 and 2, as relevant to this motion, recite a “central piece of network equipment” with the additional recited structure of an Ethernet connector with a pair of contacts that performs the recited functions “to detect different magnitudes of DC current flow” and “to control application of at least one electrical condition.” U.S. Patent No. 9,019,838 col. 17:13-26 (filed on Sep. 14, 2012) (attached to Lindgren Decl. as “Exh. G”); Exh. C at 8-10; Exh. E ¶ 303. Claim 26 covers the same “central piece of network equipment” (with the Ethernet connector) that performs the recited “detect” and “control” functions plus the additional recited function “to distinguish one end device from at least one other end device.” Exh. G cols. 18:66-19:2; Exh. C at 9; Exh. E ¶ 304. Claim 40 recites a “central piece of network equipment” with the additional recited structure of a DC power supply and Ethernet connector that performs the previously recited “detect” and “control” functions as well as the additional recited function “to control application of the at least one DC power signal.” Exh. G col. 19:42-50; Exh. E ¶ 305. The specification has no disclosure of how a “central piece of network equipment” that existed in the art can be configured to perform the applicable “novel” recited functional limitations using only the recited Ethernet connector alone or, in the case of claim 40, in combination with the DC power supply. *See* Exh. A at 35:10-24 (Chrimar argues that specification discloses how to modify Ethernet

equipment “to perform the disclosed inventions”); Exh. B at 55:15-21 (Chrimar statement that the structures performing these recited functions were “new and novel and innovative”).

The specification lacks a disclosure one of ordinary skill can use to add the recited Ethernet connector to a traditional “central piece of network equipment” to configure that device to perform the purportedly inventive “detect,” “control,” and “distinguish” functional limitations found in claims 1, 2, and 26. Likewise, the specification further fails to explain how adding the recited DC power supply to the Ethernet connector to the traditional “central piece of network equipment” configures that device to perform the recited “detect” and multiple “control” functions recited in claim 40. As described above in Section V.A.1, the specification’s teachings regarding connectors are limited and there is no suggestion of an Ethernet connector, by itself or in conjunction with the recited DC power supply, being able to perform the recited functions. Likewise, the specification’s teachings regarding isolation power supply 8, the DC power supply in central module 15, fail to demonstrate that this structure (with or without the Ethernet connector) can perform the “detect” and “control” functions recited in claim 40.

What *is* taught by the specification is that structures not recited in the claims—in fact, those expressly disclaimed by Chrimar during claim construction—work in concert to perform the recited “detect,” “control,” and “distinguish” functions. Exh. A at 34:17-35:9, 36:5-11. For example, when describing the “detect” function, the specification further discloses how the remote module 16/16a sends a power signal, which can include slightly altered voltages, to the central module 15/15a using the structures described in Figures 3, 5, 6, and 10, including firmware kernel 4, Manchester encoder 5, signal receiver 6, signal modulator 7, and isolation power supply 8, during which the central module 16/16a “detects” different magnitudes of current. Exh. D cols. 5:39-6:53; 8:38-63; 9:59-10:36. Additionally, when describing the

“control” function between central module 15/15a and remote module 16/16a, the specification explains that structures beyond isolation power supply 8 that are found in Figures 3, 5, 6, and 10—including firmware kernel 4, Manchester encoder 5, signal receiver 6, signal modulator 7, and status data encoder 9—support the “control” function between central module 15/15a and remote module 16/16a. Exh. D cols. 5:39-6:53, 8:38-63, 9:59-10:36. And as discussed in Section VI.A., the specification teaches that central module 15/15a, using signal receiver 6, Manchester encoder 5 and firmware kernel 4, can “distinguish” one end device from another. Exh. D cols. 6:7-30, 8:38-9:10. Because Chrimar contends that these structures disclosed in the specification are not included within the scope of the Asserted Claims unless specifically recited, these disclosures are irrelevant to the enablement inquiry. Exh. A at 36:5-11 (“Mr. Cohen: Is [sic?] the claim itself specifies *the exact structures that are required and necessary to perform the functions* in the claim. *If it required additional encoding, the claim would say an encoder.* It didn't need to be specific to a Manchester encoder, but *it would have the additional structural elements listed in the claim.*”) (emphasis added).

Nothing in the specification informs a skilled artisan how adding an Ethernet connector, and for claim 40 a DC power supply as well, to a traditional “central piece of network equipment” configures that device to perform the purportedly novel functional limitations set forth in the Asserted Claims. The specification provides no steps for a skilled artisan to follow to replicate the claimed device. *See Nat'l Recovery Techs., Inc.*, 166 F.3d at 1196 (finding no enablement where specification fails to provide steps for one of skill to replicate claimed invention). The specification contains only limited disclosures relating to connectors and fails to provide a skilled artisan with any materials, starting point, or direction to make the claimed device. *AK Steel*, 344 F.3d at 1244 (stating there is no enablement where the specification

provides no direction or guidance to instruct a skilled artisan how to practice the claimed invention). There is likewise no teaching regarding how the recited DC power supply performs the recited functions. As a result, the specification cannot be said to provide even the “vague intimations of general ideas” that fail to constitute enabling disclosure. *See Genentech*, 108 F.3d at 1366 (noting that “[p]atent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable.”).

Given the specification’s failure to provide steps for a skilled artisan to follow to replicate the claimed device, *see Nat’l Recovery Techs., Inc.*, 166 F.3d at 1196 (finding no enablement where specification fails to provide steps for one of skill to replicate claimed invention), one of ordinary skill would need to design, without any guidance, circuitry capable of performing the recited functions. As of the effective filing date of the patent one of ordinary skill would not have possessed the knowledge and skill needed to do so without undue or excessive experimentation. Exh. E ¶¶ 316, 318-319; Exh. B at 55:15-21 (Chrimar statement that the structures performing these recited functions were “new and novel and innovative”); *see also Genentech*, 108 F.3d at 1366 (holding that the specification, not the knowledge of the skilled artisan, must provide the enabling disclosure). Accordingly, claims 1, 2, 26 and 40 are invalid for lack of enablement.

C. The Asserted Claims of the ’760 Patent are not Enabled

The specification fails to enable the Asserted Claims of the ’760 patent. As relevant for the purposes of this motion, claims 1, 59, and 72 recite a traditional “central piece of BaseT Ethernet equipment” that, with the addition of the recited DC supply, is configured to perform the recited functions “to detect at least two different magnitudes of the current flow” and “to control the application of at least one electrical condition,” and a traditional “piece of BaseT Ethernet terminal equipment” that, with the addition of the recited path structure, is configured to

perform the recited function “to draw different magnitudes of current flow.” U.S. Patent No. 8,902,760 (filed on Sep. 14, 2012) cols. 17:16-36, 20:61-63, 21:32-35 (attached to Lindgren Decl. as “Exh. F”); Exh. C at 8, 10. Claim 31 covers the same “central piece of network equipment” (with the DC power supply) that can perform the “detect” and “control” functions and the “piece of BaseT Ethernet terminal equipment” with a recited controller added to the recited path that configures the device to perform the recited “draw” function. Exh. F col. 19:34-36. Claim 69 and 72 recite the same “central piece of network equipment” (with a DC supply) that is configured to perform, in addition to the recited “detect” and “control” functions, the additional recited function “to distinguish the piece of BaseT Ethernet terminal equipment from at least one other piece of BaseT Ethernet terminal equipment,” and the same “piece of BaseT Ethernet terminal equipment” of Claim 1. Exh. F col. 21:22-25, 32-35; Exh. C at 10. The specification fails to teach how the traditional “central piece of BaseT Ethernet equipment” and “BaseT Ethernet terminal equipment” can be configured using the limited recited structures to perform the purportedly “new and novel and innovative” recited functions. Exh. B at 55:15-21.

As addressed above in Section VI.B., the specification lacks any teaching of how one of skill can take a traditional “central piece of network equipment” and, adding only the additional recited DC power supply, give that device the ability to perform the recited “detect,” “control,” and “distinguish” functional limitations. As addressed above in Section VI.A., the specification lacks any enabling disclosure to teach one of skill how a traditional “piece of BaseT Ethernet terminal equipment,” by adding the recited path alone or in conjunction with a controller, can be configured to perform the recited “draw” functional limitation.

This failure of disclosure, as outlined above, precludes a skilled artisan from understanding the steps to follow to replicate the claimed invention. *See Nat’l Recovery Techs.*,

Inc., 166 F.3d at 1196 (finding no enablement where specification fails to provide steps for one of skill to replicate claimed invention). The specification provides no materials, starting point, or direction for a skilled artisan to make the claimed device. *AK Steel*, 344 F.3d at 1244 (stating there is no enablement where the specification provides no direction or guidance to instruct a skilled artisan how to practice the claimed invention). Consequently, as discussed above in Sections VI.A. and B., one of ordinary skill would need to design, without any guidance, circuitry capable of performing the recited functions. As of the effective filing date of the patent one of ordinary skill would not have possessed the knowledge and skill needed to do so without undue or excessive experimentation. Exh. E ¶¶ 366, 368; Exh. B at 55:15-21 (Chrimar statement that the structures performing these recited functions were “new and novel and innovative”); *see also Genentech*, 108 F.3d at 1366 (holding that the specification, not the knowledge of the skilled artisan, must provide the enabling disclosure). Accordingly, claims 1, 31, 59, 69, and 72 are invalid for lack of enablement.

VII. THE ASSERTED CLAIMS ARE INVALID FOR LACK OF WRITTEN DESCRIPTION

Just as the inventions of the Asserted Claims are not enabled, they are also not adequately described. The Asserted Claims cover traditional devices that with limited additional recited structure are configured to perform certain recited functional limitations. These claimed devices, with limited disclosed structure but multifunction capabilities, are nowhere described within the four corners of the specification as what the applicant invented. The Asserted Claims fail to meet the written description requirement because the specification fails to inform one of ordinary skill that the inventor had possession of what is claimed. *Ariad*, 598 F.3d at 1351. For the reasons set forth below, all of the Asserted Claims are invalid for lack of written description.

A. The Asserted Claims of the '107 Patent Lack Written Description.

The specification fails to expressly disclose the inventions of claims 104, 111, and 123. As discussed in Section VI.A. above, there is no express disclosure of how the powered-off end device configured with the limited additional recited structure of an Ethernet connector with a pair of contacts and a path can perform the recited “draw,” “convey,” or “distinguish” functional limitations. Nor does the specification describe a device including such a limited structure as what claims 104, 111, and 123 recite. In every case the invention described by the specification was different from what is claimed. The specification does describe an end device with significant additional structure, beyond what these claims recite, that can perform these “draw,” “convey,” and “distinguish” functions.

The specification also fails to inherently disclose the claimed inventions of claims 104, 111, and 123. A skilled artisan would not recognize that some missing descriptive matter must necessarily be present in the disclosure. Exh. E ¶ 343. That is, the structure required to perform all of the functions recited in claims 104, 111, and 123 does not “naturally appear” because there is a powered-off end device present. *Id.* As discussed above, a person of ordinary skill would have to design circuitry specifically to perform those functions. Accordingly, there is no *inherent* disclosure of such a design. *Id.* A number of specific examples of such a design are provided, but the structures comprising those designs are not recited in, and according to Chrimar are not required by, the Asserted Claims. Accordingly, claims 104, 111, and 123 are invalid for lack of adequate written description.

B. The Asserted Claims of the '838 Patent Lack Written Description.

The specification fails to expressly disclose the inventions of claims 1, 2, 26, and 40. As discussed in Section VI.B. above, there is no express disclosure of how the central piece of network equipment with the limited additional recited structure of an Ethernet connector with a

pair of contacts, can perform the “detect,” “control,” and “distinguish” functions. The specification further fails to expressly disclose how a piece of central network equipment with the limited additional structures of an Ethernet connector with a pair of contacts and a DC power supply can perform the “detect” and “control” functions. Nowhere does the specification describe such a limited structure as what is purportedly invented. In every case the invention described by the specification is different than what is recited by claims 1, 2, 26, and 40. The specification does describe a piece of central network equipment with significant additional structure that can perform these “detect,” “control,” and “distinguish” functions, but the asserted claims do not recite those significant additional structures.

The claimed inventions of claims 1, 2, 26, and 40 are also not inherently disclosed in the specification. One of ordinary skill in the art would not recognize that missing descriptive matter must necessarily be present in the disclosure. Exh. E ¶ 322. That is, the structure required to perform all of the functions recited in the asserted claims does not “naturally appear” because there is a piece of central networking equipment present. *Id.* As explained above, a person of ordinary skill would have to design circuitry specifically to perform those functions, and there is no *inherent* disclosure of such a design. *Id.* A number of specific examples of such a design are provided, but the structures comprising those designs are not recited in, and Chrimar contends that such structure are not needed in, the Asserted Claims. Accordingly, claims 1, 2, 26, and 40 are invalid for lack of adequate written description.

C. The Asserted Claims of the '760 Patent Lack Written Description.

The specification fails to expressly disclose the inventions of the claims 1, 31, 59, 69, and 72. As described in Section VI.C. above, there is no express disclosure of how the central BaseT Ethernet equipment or the BaseT Ethernet terminal equipment with the limited additional recited

structure can be configured or designed to perform the recited functions. Specifically, nowhere within the specification does it expressly discuss how a central module 15/15a, with only the limited additional structure of an Ethernet connector with a pair of contacts and a DC supply, can perform the “detect,” “control,” or “distinguish” functions. In fact, the specification never describes such a limited structure as is recite in the Asserted Claims. Rather, the purported invention described by the specification is different than what is recited in claims 1, 31, 59, 69, and 72. Although the specification does describe a central module with significant additional structure that can perform these “detect,” “control,” and “distinguish” functions, the asserted claims do not recite those significant additional structures. Likewise, the specification fails to expressly discuss how a remote module 16/16a, with only the limited structure of a path, can perform the “draw” functions. The specification further fails to expressly disclose how a piece of BaseT Ethernet terminal equipment with the limited additional structures of path and controller can perform the same “draw” function. Nor does the specification describe such limited structures as what the applicant purportedly invented. In every case the purported invention described by the specification was different than that which is now claimed. The specification does describe a remote module with significant additional structure that can perform the “draw” function, but the asserted claims do not recite those significant additional structures.

The specification also fails to inherently disclose the claimed inventions of claims 1, 31, 59, 69, and 72. One of skill would not recognize that some missing descriptive matter must necessarily be present in the disclosure. Exh. E ¶ 372. That is, the structure required to perform all of the functions recited in the asserted claims does not “naturally appear” because there is a piece of central BaseT Ethernet equipment and/or BaseT Ethernet terminal equipment present. *Id.* As explained above skilled artisan would have to design circuitry specifically to perform

those functions, and there is no *inherent* disclosure of such a design. *Id.* A number of specific examples of such a design are provided, but the structures comprising those designs are not recited in the asserted claims and Chrimar has specifically stated that structures not expressly recited are not included in the Asserted Claims. Accordingly, claims 1, 31, 59, 69, and 72 are invalid for lack of adequate written description.

VIII. CONCLUSION

For the foregoing reasons, Defendants respectfully request that this Court grant summary judgment that the Asserted Claims are invalid for lack of enablement and written description under 35 U.S.C. § 112(1).

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